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ABSTRACT

The 1982 salaries of male and female faculty members holding doctorate degrees at the University of Maryland, College Park, were compared as an extension of a 1981 study. All full-time instructional and research faculty at the rank of assistant, associate, or full professor were assessed. Attention was focused on differences that exist between salary levels of men and women faculty who held the same academic rank in similar departments and who received their doctoral degree in the same year. The differences between the total actual salaries of women faculty and the predicted salaries decreased between fall 1981 and fall 1982. The total women's salary difference declined by $6,520, whereas the number of women in the total study population increased by seven. The relationships between actual and predicted salaries for women were not uniform among divisions, among faculty ranks, or from year to year. Specific areas that were assessed included: the effects of initial salaries and promotions, the effect of annual reviews, and the number of years since obtaining the doctoral degree. In 1983, the Chancellor established divisional review committees to make recommendations regarding female faculty salary comparability. This process resulted in decisions to increase the salaries of 20 women in 1983. (SW)

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COMPARISON OF FACULTY SALARY LEVELS OF MEN AND WOMEN POSSESSING THE DOCTORATE AT THE UNIVERSITY OF MARYLAND, COLLEGE PARK (1981 AND 1982 SALARIES)

Mary Diederich Ott, Marilyn K. Brown, and Frank A. Schmidtlein

SUMMARY OF FINDINGS AND ACTIONS

August 1983

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OFFICE OF INSTITUTIONAL STUDIES
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SUMMARY OF FINDINGS AND ACTIONS

The Office of Institutional Studies at the University of Maryland, College Park (UMCP), conducted a study in 1983 of the relationships between the salaries of men and women faculty holding the doctoral degree. This study replicated, for Fall 1981 and Fall 1982, earlier studies of the relationship between men's and women's salaries. The study population included all UMCP full-time instructional and research faculty who possess a doctorate and hold the rank of professor, associate professor, or assistant professor. Administrators such as deans, associate and assistant deans, department chairs and certain directors are omitted from the analysis. Additionally, faculty on leave-without-pay, visiting faculty, and those in non-tenure track positions are excluded. Regression equations were calculated for 1981 and 1982 by academic unit for the salaries of male faculty who met the defined selection criteria. Salary differences between women's actual salaries and the salaries predicted by the men's regression equations were computed by academic unit and rank, controlling for the number of years since the award of the doctorate.

Interpretation of Findings

Salary levels of faculty are affected by factors which cannot be incorporated into a study such as this because they cannot be quantified easily or because data cannot be obtained economically. This study does not determine all of the reasons for any differences found between the actual and predicted salaries of women. The differences between women's actual and predicted salaries vary greatly among individual faculty, discipline

groupings, and ranks. New hires, promotions, leaves-without-pay, and separations may cause idiosyncratic annual fluctuation in the total salary differences. State-mandated across-the-board cost-of-living increases exacerbate already existing differences. Initial faculty salary decisions are made independently in the campus' academic departments. Therefore, the salary differences between women's actual and predicted salaries must be interpreted carefully. One cannot conclude from the study's results that sex discrimination explains the observed differences. The campus plans to review periodically faculty salaries, making individual salary adjustments, where justified, on the basis of relative merit, and to complete studies of promotion and tenure decisions, and salaries of non-doctoral degree holders. The findings of the study, and actions being taken, are described below.

Total Study Population

The differences between the total actual salaries of women faculty and the predicted salaries decreased between Fall 1981 and Fall 1982. The total women's salary difference declined by $6,520 (6.8%), whereas the number of women in the total study population increased by seven (3.5%). The total differences between the women's actual salaries and their predicted salaries for the total population of women doctoral faculty are given, by division, in Table 1.

The relationships between actual and predicted salaries for women are not uniform among divisions, among faculty ranks, or from year to year.

TABLE 1

SALARY DIFFERENCES BY DIVISION

DIVISION	1981 No. of Women	1981 Salary Difference	1982 No. of Women	1982 Salary Difference
Agricultural and Life Sciences	20	$ 18,179	21	$ 4,756
Arts and Humanities	56	(952)[1]	54	(10,959)
Behavioral and Social Sciences	32	(7,546)	37	5,997
Human and Community Resources	71	39,723	76	29,702
Mathematical and Physical Sciences and Engineering	12	28,003	11	34,451
Architecture, Journalism, and Library and Information Services[2]	7	17,824	6	24,764
TOTAL	198	$95,231	205	$88,711

[1] Parentheses indicate that the total actual salaries for women were larger than the salaries predicted from the men's regression equations.

[2] These disciplines are grouped in order to have a large enough number of men to calculate men's regression equations. Average salaries by rank among the three disciplines are comparable.

For example, in 1982, women's actual salaries were higher than their predicted salaries in one of the five divisions of UMCP. In the Division of Arts and Humanities, actual salaries of women exceeded predicted salaries in 1982. In the Division of Behavioral and Social Sciences, women's actual salaries exceeded predicted salaries in 1981, but were less than predicted salaries in 1982. In the other divisions, women's predicted salaries were larger than their actual salaries in both years.

Faculty With Unchanged Status

In order to separate out the effects of appointments, promotions and separations on the comparability of men's and women's salaries, an analysis was made of the salaries of faculty whose status did not change between Fall 1981 and Fall 1982. Faculty who were newly appointed, promoted, separated, or were administrators or part-time during either of these years were excluded from this analysis. For this constant group, women's total salary differences decreased from $93,358 in Fall 1981 to $69,571 in Fall 1982, a reduction of 25.5 percent. This reduction was the result of larger average percentage salary increases to women than to men at the ranks of professor and associate professor. The salary difference for women assistant professors increased because their average percentage salary increase was lower than that of men assistant professors.

Effects Related to Initial Salaries

Twenty women and 53 men with doctorates joined the regular tenure-track full-time faculty in non-administrative positions in July and August 1982. Of these 73 new faculty, all 20 women and 45 of the men were assistant

professors. The salaries of the men and women were very comparable.

Effects of FY 1983 Supplemental Adjustments for Women Faculty Members

The Chancellor initiated a review of female and male faculty salary comparability in Spring 1982 based on the relative merit of similarly situated faculty. This review took into account many factors not considered in the salary study. The review included all the factors which the department considered important and the relative weights attached by the department to research and scholarly productivity, teaching effectiveness, and public service. The committee considered any other relevant factors, such as the employment market conditions affecting a particular discipline. As a result of this review, the salaries of 73 women were increased by a total of $57,832 for the fiscal year beginning July 1, 1982. The salary adjustments resulted in substantially smaller salary differences between women's actual and predicted salaries in Fall 1982 than in Fall 1981. Fifty-eight of the 73 women were in the study population in Fall 1981 and Fall 1982. Their salaries were a total of $69,326 less than their predicted salaries in Fall 1981, and $34,417 less than their predicted salaries in Fall 1982. In order for the salary differences to decrease, women needed to receive larger average percentage raises than men did in July 1982. An analysis of average percentage salary increases before and after the salary adjustments indicates that before the salary adjustments women's average percentage salary increases did not exceed men's. Thus without the salary adjustments the women's salary differences would have increased.

Further Actions and Studies

In 1983 the Chancellor established divisional review committees to

make recommendations to the Provosts regarding female faculty salary comparability. A committee of seven senior faculty members was created by each Provost. Five of these members participated in each divisional salary review. Of these five, at least two were women. As salaries of faculty from specific departments were reviewed, two senior faculty members from that department were added to the committee.

These committees examined the salary of each female faculty member and recommended to the Provost individual adjustments, if they were warranted, on the basis of judgments of each woman's merit in comparison to similarly situated male colleagues. Similarly, if the committee, as a result of its review of faculty merit, determined a male faculty member's salary should be increased relative to that of similarly situated females, such an increase was recommended.

The committees' recommendations for changes in relative female, or male, faculty salary levels, if any, were reviewed by the Provosts as they were reviewing departmental merit salary recommendations. Adjustments to salaries were made within each department's merit salary allocation. This process resulted in decisions to increase the salaries of 20 women by a total of $15,416 for the fiscal year beginning July 1, 1983. The review process reflected the progress made by previous annual reviews in assuring salary equity for females. The female faculty salary recommendations made by department chairpersons generally were confirmed as equitable by the Provosts' review committees. In addition to the adjustments made in the salaries of the 20 women, the salaries of three male faculty members were adjusted by a total of $1,225. Although merit salary increases provided by the Legislature are not effective until January 1984, these equity

adjustments were made effective at the beginning of the fiscal year.

The Office of Institutional Studies is examining possible differences between women and men faculty members' promotion and tenure rates.

COMPARISON OF FACULTY SALARY LEVELS OF MEN AND WOMEN POSSESSING THE DOCTORATE AT THE UNIVERSITY OF MARYLAND, COLLEGE PARK (1981 AND 1982 SALARIES)

Mary Diederich Ott, Marilyn K. Brown, and Frank A. Schmidtlein

August 1983

OFFICE OF INSTITUTIONAL STUDIES
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FOREWORD

At the request of the Vice Chancellor for Academic Affairs, the Office of Institutional Studies in 1981 conducted a study comparing faculty salaries of men and women using Fall 1979 salary data. The purpose of that study was to examine salary differences which existed between men and women full-time faculty holding the doctorate at the ranks of professor, associate professor, and assistant professor at the University of Maryland, College Park. The results of that study, Female Faculty Salary Equity Study: University of Maryland, College Park, were presented in April 1981.

In 1982 a follow-up study of Fall 1980 and Fall 1981 faculty salaries was conducted, as part of the campus' continuing effort to assess differences between faculty salaries of men and women. The results of that study were presented in June 1982 in a report titled Comparison of Male and Female Faculty Salary Levels at the University of Maryland, College Park.

The current study: (1) replicates the study of UMCP faculty salaries for Fall 1981, utilizing corrected data; (2) extends the analysis to faculty salaries for Fall 1982; (3) compares the results for Fall 1981 and 1982 both for the faculty as a whole and for those faculty with unchanged status in these two years; and (4) identifies, where possible, reasons for differences between the predicted and actual salaries of women. Recommendations are included for further studies needed to assess salary differences between male and female UMCP faculty.

INTRODUCTION

An analysis of faculty salary levels needs to be reviewed in the context of UMCP's organization, the different contexts within which salary decisions are made, and a brief review of past efforts to assess salary differences between men and women.

Organization of UMCP

The University of Maryland at College Park is organized into five divisions. Divisions contain: (1) colleges and schools, some of which are further divided into departments; and (2) departments whichare not included in a college or a school.

All of the teaching faculty are employed in these divisions. Recommendations on faculty salaries originate in the departments. Initially, salary recommendations are made by the department chairperson or by a departmental committee and the chairperson. These recommendations are reviewed at higher levels. The departments, colleges, schools and divisions are given a large measure of autonomy to recruit and review the performance of their faculty, although a veto over specific actions and policies is held by higher-level administrators.

Staff services and campus-wide coordination of academic policy and faculty review are provided by the Vice Chancellor for Academic Affairs. Services and coordination in other areas are provided by Vice Chancellors for Student Affairs and Administrative Affairs. Figure 1 provides an organization chart of the academic units of the campus. Units in which no faculty have tenure or are on tenure-track are omitted from the figure.

The statistical analyses performed in this study grouped data according to this existing academic organizational structure. Differences between

FIGURE 1

UNIVERSITY OF MARYLAND AT COLLEGE PARK
ORGANIZATION CHART
ACADEMIC UNITS

Chancellor

Provost ALSC

- College of Agriculture

ALSC Non-College

- Botany
- Chemistry
- Entomology
- Geology
- Microbiology
- Zoology

Provost A & H

- School of Architecture[2]
- College of Journalism[2]

A & H Non-College

- American Studies
- Art
- Classics
- Communication Arts & Theatre
- Comparative Literature Program
- Dance
- English
- French & Italian
- Germanic & Slavic Languages & Literatures
- Hebrew & East Asian Languages & Literatures
- History
- Music
- Philosophy
- Spanish & Portuguese
- Women's Studies Program[1]

Provost BSOS

- College of Business and Management

BSOS Non-College

- School of Public Affairs
- Afro-American Studies
- Anthropology
- Economics
- Geography
- Government & Politics
- Hearing & Speech Sciences
- Industrial Relations & Labor Studies Center
- Institute of Criminal Justice & Criminology
- Institute for Urban Studies
- Psychology
- Sociology
- Women's Studies Program[1]

Provost HUCR

- College of Education[3]
- College of Human Ecology[3]
- College of Library & Information Services[2]
- College of Physical Education, Recreation, & Health

Provost MPSE

- College of Engineering

MPSE Non-College

- Applied Mathematics
- Computer Science
- Institute for Physical Science & Technology
- Mathematics
- Meteorology
- Physics & Astronomy

[1]Administered jointly by A & H and BSOS; analyzed in A & H non-college.

[2]School of Architecture, College of Journalism and College of Library and Information Services grouped together in the analysis as a separate grouping.

[3]Colleges of Education and of Human Ecology grouped together in the analysis as a sub-group of HUCR.

predicted and actual salaries for women generally were computed for each college and school in each division*, and for groupings of all other disciplines in each division which are not in a college or a school. The units which are combined to form the non-college groupings in the analysis are shown in the boxes in Figure 1.

Faculty Salary at Appointment, Salary Increases, and Promotion and Tenure Decisions

The University of Maryland does not have a set salary scale for its faculty. Salaries vary considerably across departments based on conditions in the faculty marketplace and evaluations of faculty quality, as well as legislative appropriations. Three important times when salary determinations are made are initial appointment, periodic salary increases, and academic promotion.

Salary established at initial appointment. The recommended salary for a faculty member at the time of initial appointment is determined through negotiation between the department and the prospective faculty member. This

*The School of Architecture and the College of Journalism were grouped with the College of Library and Information Services in order to have a large enough number of men to calculate men's regression equations. The average salaries by rank among the three disciplines are comparable. Beginning in 1982, it was necessary to combine the College of Human Ecology with the College of Education to form a sub-group of the Division of Human and Community Resources. This was the case because the number of male full-time faculty with doctorates who held rank in the College of Human Ecology declined from 17 to 14 in Fall 1982. The average salaries by rank are comparable for the Colleges of Education and of Human Ecology. To assure comparability of results, both the 1981 and 1982 analyses group these colleges together.

negotiation takes into consideration the quality, experience, proposed rank of the individual and funds available to the department. The negotiation also is influenced by the availability of qualified faculty members in the particular discipline. The availability of few qualified faculty tends to increase salary offers while the reverse situation leads to more conservative offers. The salaries offered to new faculty are reviewed and approved by deans, provosts and the Academic Vice Chancellor and, at senior ranks, by the Chancellor and the President. Salary recommendations also are reviewed by an assistant provost (equity officer) in each division to help the Provost assure that affirmative action, equal opportunity, and equity requirements are met.

Periodic salary increases. Periodically, nearly always annually, faculty salaries are reviewed to reward merit. Cost-of-living increases typically are distributed by the State as a percentage increase for all State employees, including faculty. Merit increases are awarded on the basis of departmental faculty committee and/or departmental chairperson's recommendations which are reviewed and approved by the deans, provosts, Academic Vice Chancellor, and Chancellor. The size of cost-of-living increases usually is specified in the annual legislative appropriation act. The cost-of-living increase in 1982 was 9 percent. The size of merit increases is influenced by the total funds available to the campus for this purpose, the allocation of funds among the divisions and departments, and the recommendations regarding each individual. Trade-offs have to be made between giving a large number of persons small increases or a small number larger increases. The intrinsic quality of faculty members' contributions and the need to meet competition from other institutions influence decisions.

In 1982 the average merit increase for all faculty (including those without doctorates) was set at 5.2 percent.

Promotion and tenure decisions. Promotion and award of tenure to faculty members are governed by policies approved by the Board of Regents. As in most academic institutions, the promotion/tenure process starts with a peer evaluation at the department level. Materials which typically are available include a curriculum vitae prepared by the candidate; teaching evaluations obtained by one or more techniques; and letters of recommendation from academicians and others outside the University who evaluate the candidate's stature regionally, nationally, and internationally as a scholar. The recommendations of the department and its chairperson are reviewed by faculty committees and administrators at successively higher levels, including assistant provosts specifically responsible for advising on affirmative action, equal opportunity, and equity. Final decisions on all awards of tenure and promotion are made by the President of the University. In addition to the qualifications of the individual, promotion and tenure decisions may be influenced by the percentage of faculty at each rank, the percentage who are tenured, and program considerations. Promotion and tenure rates may vary across departments because of their differing circumstances, e.g., proportion of senior faculty, proportion already tenured, and growth or decline in enrollment.

Assessments of Salary Differences between Male and Female Faculty

Studies of male and female faculty salary levels at UMCP have been conducted periodically since at least 1970. Generally, these studies employed regression equations to estimate average male and female salaries; net differences were then calculated. In one study, however, faculty were

categorized, gross means calculated by category, and subsets of matched pairs within categories were analyzed. These studies were carried out by different groups, including: the Office of Institutional Studies, a subcommittee of the Chancellor's Commission on Women's Affairs, the Office of Academic Affairs, and the State Board for Higher Education (as part of a statewide study).

The findings of these studies were provided to campus administrators so they could review individual cases and recommend adjustments warranted on the basis of relative merit. As a result of these reviews, a number of female faculty members received salary adjustments.

The current study of Fall 1981 and Fall 1982 faculty salaries is part of the continuing UMCP effort to monitor salary differences between female and male faculty. A study is now underway in the Office of Institutional Studies to examine promotion and tenure rates of male and female faculty.

DESIGN OF THE STUDY

The research design and methodology employed in this study is similar to that used in the study of Fall 1979, 1980 and 1981 faculty salaries. The study examines salary differences which could result from the annual salary review process and/or from salaries established at initial appointment. In the case of 1982 salaries, the results of the special merit review of women's salaries also are taken into consideration.

Research Questions

1. What differences exist between the salary levels of men and women faculty who hold the same academic rank in similar departments and who received their doctoral degree in the same year?

2. How have these differences changed between 1981 and 1982?

Population

The study group includes all UMCP full-time instructional and research faculty who possess a doctorate and hold the rank of professor, associate professor, or assistant professor. Administrators such as deans, associate and assistant deans, department chairs, and certain directors are omitted from the analysis. Additionally, faculty on leave-without-pay, visiting faculty, and those in non-tenure track positions are excluded.

Data Sources

Salary and other pertinent data were obtained from the "frozen" Fall 1981 and 1982 personnel data bases and from records of the Personnel Office. A large number of errors were identified on the data files in doctoral degree dates, in salaries, in rank, department and so forth. Material in approximately 500 personnel folders was reviewed in order to determine correct degree and salary data. The errors which were identified necessitated a reanalysis of the 1981 salary data because they affected 10 percent of the cases in the Fall 1981 data file. Correcting these errors as well as an error in the program used to calculate the salary differences had an overall effect of increasing the 1981 total salary difference from the

previously reported $86,057 to $94,809, an increase of $8,752. Combining the College of Human Ecology and the College of Education brought the total salary deviation for Fall 1981 to $95,231, an overall increase of $9,174.

Identification of Relevant Variables

In order to explore reasons, and the legitimacy of the reasons, for differences between men's and women's salaries, a study must seek to identify the variables which are related to salaries and to the differences between men's and women's salaries. This task is complex and difficult. There are many factors affecting salaries, and these may differentially impact men's and women's salaries. For example, it is commonly found that "faculty rank is the most important determinant in predicting relative amounts of salary."[1] Therefore, a different distribution of men and women among the ranks, as one would expect strictly on the basis of the increasing proportion of women among doctoral degree recipients in recent years, would cause a differential in the average salaries of men and women.

Even when relevant variables can be identified, there may be disagreement over their significance or legitimacy. An example is prior administrative experience. Furthermore, many variables are hard to quantify (such as the quality of publications), or may be more relevant to some disciplines than to others. Finally the time and costs of collecting, verifying, and analyzing data (such as number of publications) which are not contained in automated

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[1] G.W. McLaughlin, J.R. Montgomery, and B.T. Mahan, "Pay, Rank, and Growing Old with More of Each," Research in Higher Eduation, XI (1979), 23.

data systems frequently preclude assessing the contribution of potentially important variables.

Potential Variables

As discussed extensively in the report[2] of the analysis of Fall 1980 and Fall 1981 salaries, there are many variables which might be included in an analysis of faculty salary levels. These variables may be grouped into those related to: (1) the level and years of experience of the individual; (2) the individual's scholarly achievement, including the attainment of tenure and promotions; (3) the field of expertise of the individual, as reflected in the departmental affiliation; and (4) social and cultural characteristics such as marital status and career expectations.

In practice, no one is ever sure all significant variables are included in an analysis. Therefore, any conclusions drawn from a study of salary levels of male and female faculty are, to a considerable degree, tenuous. Such studies rarely provide conclusive evidence as to whether or not sex bias exists in the salary-setting process. For these reasons there is no basis for concluding that the differences identified in this study are attributable to sex bias. This study's primary value is to guide more detailed examination of individual faculty salaries.

Basis for Selecting Variables

Predictive power of variables. The literature on the use of regression analysis in sex salary difference studies contains important and well documented

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[2] Office of Institutional Studies, UMCP, "Comparison of Male and Female Faculty Salary Levels at the University of Maryland, College Park", College Park, 1982, pp. 8-10.

discussions about the merits of including or excluding specific predictor variables in regression equations. Independent variables other than rank, sex, years-since-highest degree, and academic unit improve prediction accuracy only slightly.

Inclusion of predictor variables such as publications, type-of-publications, first-date-employed-at-the-institution, number-of-Ph.D.-graduates-produced, and transformed variables have been shown to have had little effect on improving the accuracy of prediction. This phenomenon occurs because the largest group in the study, white males, has relatively uniform characteristics and a few characteristics (suggesting intercorrelations) indirectly predict others.[3]

Data Availability. Very few of the potential variables are available in University records in a form which permits them to be analyzed at a reasonable cost. The time and resources required to collect, edit, and analyze data which are not already available in the University's computer stored data base precluded incorporating these variables into the study.

The variables which relate to scholarly achievement are hard to quantify and assess. In professions, the task of assessment and promotion are nearly always left to members of the profession since considerable training, experience, and informed judgment are necessary to determine quality. Since education is so intimately concerned with the values imparted to students, judgments on faculty quality are carefully shielded from possible political interference by means of peer-review processes. Any quantification of quality variables is certain to measure only partially the great range of factors considered during peer reviews and, therefore, is subject to considerable debate. Counts of publications, for example, are only proxies for quality since one good book may be worth more than two which are mediocre.

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[3] M.W. Gray and E.L. Scott, "A 'Statistical' Remedy for Statistically Identified Discrimination," Academe, (May, 1980), 174-176.

As noted earlier, salaries vary among professional fields. Therefore, male/female salary comparisons cannot legitimately be made if departments in which faculty have different average salaries are grouped together in an analysis. In this study faculty were grouped by department in which they hold, or will be considered for, tenure.

Variables Selected for Analysis

The variables which were identified as most relevant for a comparative study of male and female salary levels, and which were included and investigated in the earlier studies at UMCP, are listed below:

Sex - Male and female

Rank - Professor, associate professor, and assistant professor

Salary - Actual 1981-82 and 1982-83 ten-month faculty salaries or converted ten-month salaries. All funding sources were included.

Academic Unit - A grouping variable representing 10 academic organizational clusters:

Agricultural and Life Sciences (ALSC): Non-college disciplines

College of Agriculture

Arts and Humanities (A&H): Non-college and non-school disciplines

Behavioral and Social Sciences (BSOS): Non-college disciplines

College of Business and Management

College of Education and College of Human Ecology

College of Physical Education, Recreation and Health

Mathematical and Physical Sciences and Engineering (MPSE): Non-college disciplines

College of Engineering

College of Journalism, School of Architecture, and College of Library and Information Services

Years-Since-Doctoral-Degree - The number of whole years since the date of doctorate, as calculated in 1981 and 1982

Years-Since-Doctoral-Degree-Squared - A product of the square of years since doctorate; included to account for the possible non-linear nature of salary growth over a career

Statistical Methodology

The same form of regression analysis was used for the Fall 1981 and Fall 1982 analyses. Specifically, regression equations were calculated for each of the 10 academic units, based on the data for all men in the unit. The 10-month salary of each female faculty member was compared with these men's regression equations to determine how far, and in which direction, her salary deviated from that predicted by the respective prediction equation for men in her academic unit and rank. (A graphic depiction of this model appears in Figure 2.) The general form of the equation for each academic unit grouping was:

$$S = B_0 + B_1 YSD + B_2 YSD^2 + B_3 R_1 + B_4 R_2$$

S = Salary (dependent variable

B_0 = Intercept

B_1 to B_4 = Respective independent variable regression coefficients

YSD = Years since receiving the doctoral degree

YSD^2 = Years since receiving the doctoral degree squared

R_1 = Rank of professor

R_2 = Rank of associate professor

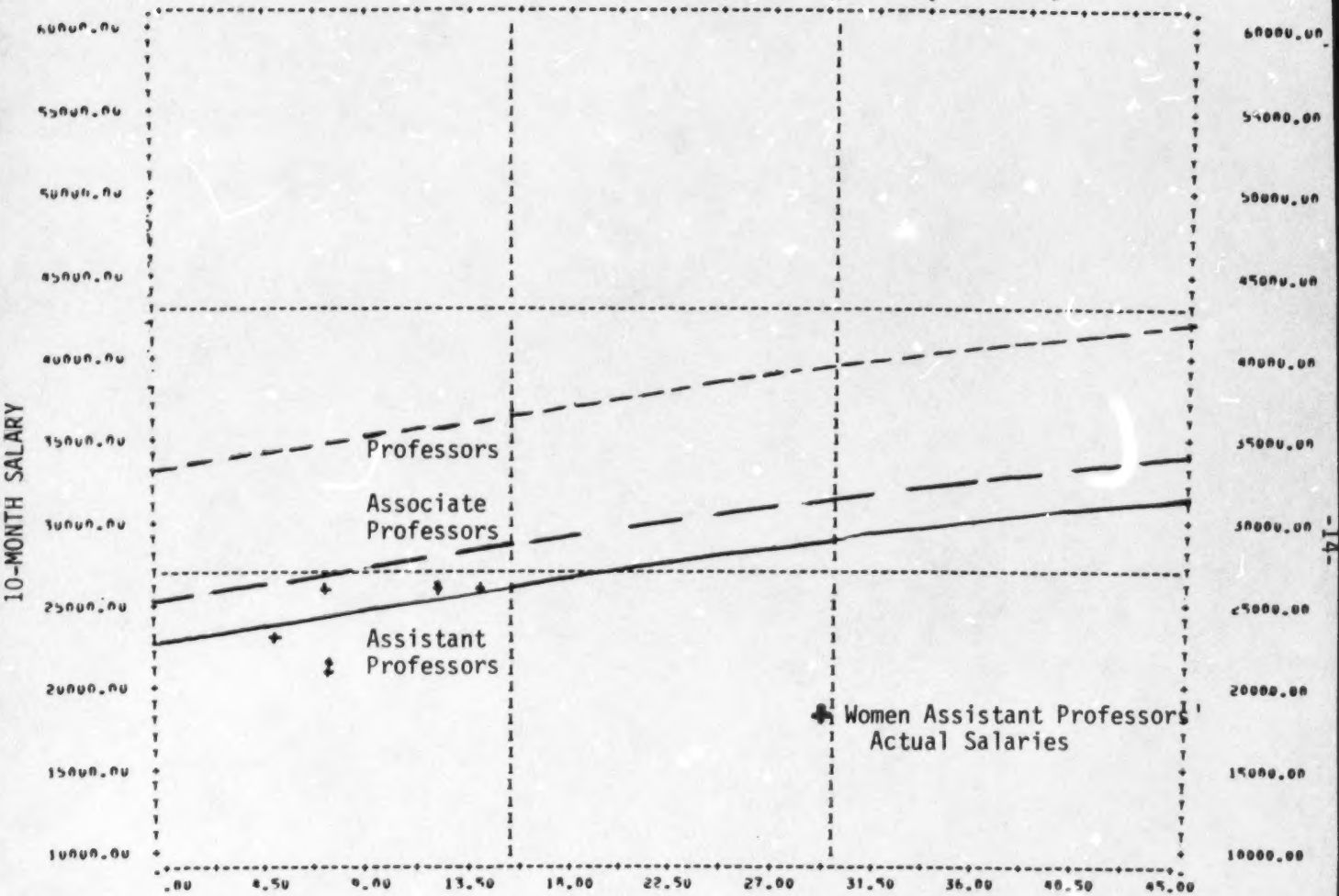

FIGURE 2

SALARY PREDICTION CURVES FOR ALSC, NON-COLLEGE DISCIPLINES

Comparisons were made of the multiple correlation coefficients of the separate 1981 and 1982 male prediction equations for each academic unit. The results of these comparisons confirmed that no significant changes were observed for the respective multiple correlation coefficients. The variables included in the regression model accounted for a substantial proportion of the variance in men's salaries, ranging from 58 percent for one academic unit to 83 percent for another unit.

DATA ANALYSIS AND RESEARCH FINDINGS

Salary differences can result from three major distinct processes--hiring, promotion and annual review. Although this report is concerned primarily with the annual review process, starting salaries of new faculty and numbers of persons promoted will be briefly considered.

Using the model defined earlier, regression equations were calculated for 1981 and for 1982 by academic unit for the salaries of male faculty who met defined selection criteria (1,004 men in each year). These are all full-time tenured or tenure-track faculty with doctorates who did not have administrative appointments and were not on leave-without-pay. Individual women's salaries were then compared to the respective equations, and a total salary deviation was calculated for every academic unit for each year. For each woman this deviation is the difference between her actual salary (on a 10-month basis) and the salary predicted from the men's regression equation for a person in her academic unit, rank and with the same number of years since the doctorate. There were 198 women in the study population in 1981 and 205 in 1982.

In order to isolate changes that result from the annual review process, a similar process was carried out for those faculty who did not change their faculty status between 1981 and 1982. These are the faculty who were in the study population both years (i.e., full-time faculty, non-administrative, not on leave-without-pay) who were not promoted in 1982. Faculty who left the university in 1981-1982 or who were newly hired at one of the professorial ranks between October 1981 and Fall 1982 were excluded from this "constant group."

The men and women faculty in the constant group were identified (888 men and 169 women) and the same form of regression analysis was used to calculate total salary deviations for women as was used in the total faculty group. The results of the constant group analysis show more clearly the changes occurring as a result of the annual salary review process (including special merit increases awarded to women).

Campus-wide Salary Differences, 1981 and 1982

Table 2 shows in summary form the differences between women's salaries and the salaries predicted from the men's regression equations for the years 1981 and 1982, both for the total population of the study and the "constant group." The cumulative amount by which women's salaries were lower than the salaries predicted from the men's regression equations for the analysis including the total population were $95,231* in Fall 1981 and $88,711 in

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*As discussed earlier, numerous corrections were made in the data that had been used for the June 1982 report of Fall 1981 salary differences. In addition, an error was corrected in the program used to calculate the salary differences. Correcting these errors had an overall effect of increasing the 1981 total salary difference from the previously reported $86,057 to $94,809, an increase of $8,752. Combining the Colleges of Human Ecology and of Education brought the total salary deviation for Fall 1981 to $95,231, an overall increase of $9,174.

TABLE 2

1981 AND 1982 WOMEN'S FACULTY SALARY DIFFERENCES AND YEAR-TO-YEAR CHANGE BY ACADEMIC UNITS

Academic Units	Total Faculty: Total Salary Difference 1981	Total Faculty: Total Salary Difference 1982	Total Faculty: Change 1981-82	Faculty with Unchanged Status: Total Salary Difference 1981	Faculty with Unchanged Status: Total Salary Difference 1982	Faculty with Unchanged Status: Change 1981-82
ALSC						
College of Agriculture	$ 523	($ 1,211)[1]	($ 1,734)	$ 508	($ 1,513)	($ 2,021)
Non-College Disciplines	17,656	5,967	(11,689)	13,852	6,471	(7,381)
Total	$18,179	$ 4,756	($13,423)	$14,360	$ 4,958	($ 9,402)
Number of Women	20	21	+1	19	19	
MPSE						
College of Engineering	$ 6,588	$ 8,499	$ 1,911	$ 6,103	$ 8,482	$ 2,379
Non-College Disciplines	21,415	25,952	4,537	24,487	26,807	2,320
Total	$28,003	$34,451	$ 6,448	$30,590	$35,289	$ 4,699
Number of Women	12	11	-1	9	9	
BSOS						
College of Business and Management	$10,487	$ 9,127	($ 1,360)	$ 7,886	$ 8,369	$ 483
Non-College Disciplines	(18,033)	(3,130)	14,903	(14,068)	(17,310)	(3,242)
Total	($ 7,546)	$ 5,997	$13,543	($ 6,182)	($ 8,941)	($ 2,759)
Number of Women	32	37	+5	30	30	
A & H						
School of Architecture[2]						
College of Journalism[2]						
Non-College Disciplines	($ 952)	($10,959)	($10,007)	($ 2,007)	($13,450)	($11,443)
Total	($ 952)	($10,959)	($10,007)	($ 2,007)	($13,450)	($11,443)
Number of Women	56	54	-2	44	44	
HUCR						
College of Library & Information Services[2]						
College of Physical Educ., Recreation & Health	$ 5,370	$15,633	$10,263	$ 7,218	$ 7,882	$ 664
College of Human Ecology & College of Education	34,353	14,069	(20,284)	30,274	20,274	(10,000)
Total	$39,723	$29,702	($10,021)	$37,492	$28,156	($ 9,336)
Number of Women	71	76	+5	62	62	
Architecture, Journalism, and Library & Information Services						
Total	$17,824	$24,764	$ 6,940	$19,105	$23,559	$ 4,454
Number of Women	7	6	-1	5	5	
TOTAL UMCP	$95,231	$88,711	($ 6,520)	$93,358	$69,571	($23,787)
TOTAL NUMBER OF WOMEN	198	205	+7	169	169	

[1]Parentheses indicate that the total actual salaries for women were larger than the salaries predicted from the men's regression equations.

[2]These disciplines are grouped in order to have a large enough number of men to calculate men's regression equations. Average salaries by rank among the three disciplines are

Fall 1982. This is a decrease of 6.8 percent, whereas the number of women in the total population increased by 3.5 percent.

Salary differences by rank for the total group (Table 3) indicate decreases in the total salary differences for women professors and women associate professors, and increases in the total salary difference for women assistant professors.

Table 3

TOTAL SALARY DIFFERENCES BY RANK

Total Population	1981	(n)	1982	(n)
Professor	$30,159	30	$19,097	32
Associate Professor	20,272	61	12,261	65
Assistant Professor	44,800	107	57,353	108
All Ranks	$95,231	198	$88,711	205
Constant Group				
Professor	$26,689	29	$20,708	29
Associate Professor	18,066	54	(8,423)	54
Assistant Professor	48,603	86	57,286	86
All Ranks	$93,358	169	$69,571	169

Effects Related to Annual Review

The total amount by which women's salaries were lower than the salaries predicted from the men's regression equations for the constant group were $93,358 for Fall 1981 and $69,571 for Fall 1982, a decrease of 25.5 percent. Thus significant progress appears to have been made in reducing the salary differences for women whose rank and status did not change.

An analysis of the salary differences by rank for the constant group indicates that the reduction in the salary difference in the constant group occurred in the salary differences of women professors and particularly of associate professors. As indicated in Table 3, the total salary difference for the 54 women associate professors in the constant group was $18,066 in 1981. In Fall 1982, salaries of women associate professors with unchanged rank were higher on average than their predicted salaries, with a difference between actual and predicted salaries of $8,423.

This result is supported by an analysis of the percentage salary increases awarded to faculty in the constant group. As shown in Table 4, mean percentage salary increases were larger for women than men as a whole. Increases were also larger for women at the ranks of professor and of associate professor, but were larger for men than for women at the rank of assistant professor.

Table 4

MEAN PERCENTAGE INCREASE IN SALARY BY RANK FOR MEN AND WOMEN WITH UNCHANGED STATUS

Rank	Group	N	Mean Percentage Increase	Standard Deviation
Professor	Men	377	14.06	3.88
	Women	29	15.02	3.90
Associate Professor	Men	322	14.19	3.78
	Women	54	15.84	3.80
Assistant Professor	Men	189	15.95	4.73
	Women	86	15.15	3.36
All Ranks	Men	888	14.51	4.10
	Women	169	15.35	3.60

Effects Related to Initial Salaries and Promotions

In addition to annual review, there are two other major influences on faculty salaries. These are promotion rate and initial salary. In regard to promotions, in Summer 1982, 11 men and 10 women with doctorates were promoted to associate professor with tenure; 15 men and 1 woman with doctorates were promoted to the rank of professor.

In regard to initial salaries, 22 women and 65 men with doctorates became full-time non-administrative tenure-track or tenured faculty at UMCP between October 1981 and August 1982. Of these, 2 women and 12 men joined the faculty during the 1981-82 academic year and received salary increases in 1982. The remaining 20 women and 53 men form the group of faculty who were newly employed during the Summer of 1982. A breakdown of these faculty by sex and by rank is given in Table 5.

TABLE 5

NEW FACULTY BY SEX AND BY RANK

	Professors	Associate Professors	Assistant Professors	All Ranks
Men	4	4	45	53
Women	0	0	20	20
All Faculty	4	4	65	73

A determination was made whether there were differences in the starting salaries of the new male and female assistant professors as follows: A third set of regression equations was obtained, based on the data for all male faculty in the total study population who were not new in Summer 1982 (951 men). Predicted salaries, controlling for division, rank, and years since

doctoral degree, were then obtained separately for the new male assistant professors and for the new female assistant professors.

The results of this analysis were that 70 percent of the women and 71 percent of the men received starting salaries lower than predicted by the regression equations for the men who were not new faculty. The regression equations for male assistant professors in a given division with some years of service at UMCP predict higher salaries, on average, than are received by new male or female assistant professors in that division with the same number of years since completion of the doctorate.

The salary differences for the 53 men averaged $807 per person. Those for the 20 women averaged $1,067 per person. This discrepency between men's and women's salary differences is readily accounted for by the large salary difference of one female assistant professor who received her doctorate over 15 years ago. If her salary is not considered, the difference in the average salary differences for men and for women is $30 per person, in the women's favor.

Thus, except for one woman's salary, initial salaries of men and women assistant professors, when compared with those predicted from the appropriate regression equations, were quite comparable. Fall 1982 starting salaries of assistant professors were not a major factor in the salary differences noted in the total population.

Salary Differences by Division and Rank, Total Group

Between 1981 and 1982 the aggregate women's salary difference for the total group of women decreased by 6.8 percent whereas the number of women increased by 3.5 percent. As indicated in Table 6, in 1981 there were

TABLE 6

1981 AND 1982 WOMEN'S SALARY DIFFERENCES BY ACADEMIC UNIT AND RANK
(TOTAL POPULATION)

	Professor		Associate		Assistant		Total	
	No.	Difference	No.	Difference	No.	Difference	No.	Difference
Agric. & Life Sciences								
College of Agriculture								
1981	0	--	0	--	5	$ 523 [1]	5	$ 523
1982	0	--	0	--	6	(1,211)	6	(1,211)
Change 1981-1982	0	--	0	--	1	(1,734)	1	(1,734)
Non-college Disciplines								
1981	2	$ 1,933	8	$10,328	5	$ 5,395	15	$17,656
1982	2	(1,240)	7	1,493	6	5,714	15	5,967
Change 1981-1982	0	(3,173)	-1	(8,835)	+1	319	0	(11,689)
Math. & Phys. Sciences & Engineering								
College of Engineering								
1981	0	--	1	$ 4,167	2	$ 2,421	3	$ 6,588
1982	0	--	1	5,247	2	3,252	3	8,499
Change 1981-1982	0	--	0	1,080	0	831	0	1,911
Non-college Disciplines								
1981	4	$23,986	0	--	5	($ 2,571)	9	$21,415
1982	4	25,575	2	(147)	2	524	8	25,952
Change 1981-1982	0	1,589	+2	(147)	-3	3,095	-1	4,537
Behavioral & Social Sci.								
College of Business & Management								
1981	1	$ 5,037	0	--	3	$ 5,450	4	$10,487
1982	1	2,607	0	--	4	6,520	5	9,127
Change 1981-1982	0	(2,430)	0	--	+1	1,070	+1	(1,360)
Non-college Disciplines								
1981	6	($ 8,832)	9	($11,356)	13	$ 2,155	28	($18,033)
1982	7	(3,783)	9	(6,155)	16	6,808	32	(3,130)
Change 1981-1982	+1	5,049	0	5,201	+3	4,653	+4	14,903

[1] Parentheses indicate that the total actual salaries for women were larger than the salaries predicted from the men's regression equations.

TABLE 6 (Continued)

	Professor		Associate		Assistant		Total	
	No.	Difference	No.	Difference	No.	Difference	No.	Difference
Arts and Humanities								
Non-college Disciplines								
1981	5	($ 2,793)[1]	22	($ 975)	29	$ 2,816	56	($ 952)
1982	5	(9,236)	22	(10,833)	27	9,110	54	(10,959)
Change 1981-1982	0	(6,443)	0	(9,858)	-2	6,294	-2	(10,007)
Human & Community Resources								
College of Physical Educ., Recreation & Health								
1981	1	($ 39)	4	$ 2,068	8	$ 3,341	13	$ 5,370
1982	1	(522)	4	3,989	11	12,166	16	15,633
Change 1981-1982	0	(483)	0	1,921	+3	8,825	+3	10,263
College of Human Ecology & College of Education								
1981	10	$ 4,225	15	$17,525	33	$12,603	58	$34,353
1982	11	(3,476)	18	16,699	31	846	60	14,069
Change 1981-1982	+1	(7,701)	+3	(826)	-2	(11,757	+2)	(20,284)
School of Architecture, College of Journalism & College of Library & Information Services								
1981	1	$ 6,642	2	($ 1,485)	4	$12,667	7	$17,824
1982	1	9,172	2	1,968	3	13,624	6	24,764
Change 1981-1982	0	2,530	0	3,453	-1	957	-1	6,940
Total								
1981	30	$30,159	61	$20,272	107	$44,800	198	$95,231
1982	32	19,097	65	12,261	108	57,353	205	88,711
Change 1981-1982	+2	($11,062)	+4	($ 8,011)	+1	$12,553	+7	($ 6,520)

[1] Parentheses indicate that the total actual salaries for women were larger than the salaries predicted from the men's regression equations.

eight units with salary differences that indicated that women's salaries were lower on average than their predicted salaries. In four of these units (Agricultural and Life Sciences, both College of Agriculture and Non-college Disciplines; the College of Business and Management; and the College of Education and College of Human Ecology), there were reductions in the salary difference in 1982. Women's salaries in the College of Agriculture exceeded those predicted from the men's regression equations in 1982. The total salaries in each of the other three units remained below those predicted from the regression equations, although the differences were reduced. There were large reductions in the salary differences in the non-college disciplines of the Division of Agricultural and Life Sciences at the ranks of professor and of associate professor, and in the unit consisting of the Colleges of Education and of Human Ecology at the ranks of professor and assistant professor.

In the four other units in which women's total salaries were lower in 1981 than their predicted salaries (the Division of Mathematical and Physical Sciences and Engineering, both College of Engineering and Non-college Disciplines; the College of Physical Education, Recreation and Health*; and the School of Architecture, College of Journalism, and College of Library and Information Services), there were increases in the salary differences for women.

In 1981 there were two units in which women's total salaries exceeded those predicted from the men's regression equations (Behavioral and Social

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*The increase in this unit was largely attributable to the starting salary of a new assistant professor being substantially lower than that predicted for a person who obtained a doctoral degree as early as she did.

Sciences Non-college Disciplines, Arts and Humanities Non-college Disciplines). In 1982 the (positive) salary difference decreased in Behavioral and Social Sciences Non-college Disciplines. That is, women's actual salaries continued to be larger than their predicted salaries on average; however, the difference between actual and predicted salaries was smaller in 1982 than in 1981. The (positive) salary difference increased in 1982 in Arts and Humanities at the ranks of professor and associate professor.

Salary Differences by Division and Rank, Constant Group

As indicated in Table 7, between 1981 and 1982, the salaries of women in the constant group increased relative to those predicted by the men's regression equations. The changes in 1982 for the constant group followed the same patterns by academic unit as in the total group, except in the Division of Behavioral and Social Sciences, both College of Business and Management and Non-college Disciplines. In the College of Business and Management, the total group showed a decrease in the salary difference for women, whereas the constant group showed a small increase in this difference. In the non-college disciplines, the (positive) salary difference was reduced substantially in the total group but increased in the constant group. This latter result indicates that women in the non-college disciplines of BSOS who did not change their status from 1981 to 1982 increased their salary advantage relative to salary predictions based on the regression equations for men in the constant group. However, the salaries of the persons who changed status between 1981 and 1982 served to decrease the salary advantage for women in the non-college disciplines of BSOS. Women's actual salaries continued to be larger than their predicted salaries on average, but the difference between actual and predicted salaries was smaller in 1982 than in 1981.

TABLE 7

1981 AND 1982 WOMEN'S SALARY DIFFERENCES BY ACADEMIC UNIT AND RANK
(CONSTANT GROUP)

	Professor		Associate		Assistant		Total	
	No.	Difference	No.	Difference	No.	Difference	No.	Difference
Agric. & Life Sciences								
College of Agriculture								
1981	0	--	0	--	5	$ 508	5	$ 508
1982	0	--	0	--	5	(1,513)[1]	5	(1,513)
Change 1981-1982		--		--		(2,021)		(2,021)
Non-college Disciplines								
1981	2	$ 1,609	7	$ 6,803	5	$ 5,440	14	$13,852
1982	2	(1,455)	7	(1,152)	5	9,078	14	6,471
Change 1981-1982		(3,064)		(7,955)		3,638		(7,381)
Math. & Phys. Sciences & Engineering								
College of Engineering								
1981	0	--	1	$ 3,844	2	$ 2,259	3	$ 6,103
1982	0	--	1	5,077	2	3,405	3	8,482
Change 1981-1982				1,233		1,146		2,379
Non-college Disciplines								
1981	4	$24,221	0	--	2	$ 266	6	$24,487
1982	4	25,358	0	--	2	1,449	6	26,807
Change 1981-1982		1,137		--		1,183		2,320
Behavioral & Social Sci.								
College of Business & Management								
1981	1	$ 5,281	0	--	3	$ 2,605	4	$ 7,886
1982	1	4,119	0	--	3	4,250	4	8,369
Change 1981-1982		(1,162)		--		1,645		483
Non-college Disciplines								
1981	6	($ 9,311)	8	($ 7,603)	12	$ 2,846	26	($14,068)
1982	6	(11,938)	8	(13,574)	12	8,202	26	(17,310)
Change 1981-1982		(2,627)		(5,971)		5,356		(3,242)

[1]Parentheses indicate that the total actual salaries for women were larger than the salaries predicted from the men's regression equations.

TABLE 7 (Continued)

	Professor		Associate		Assistant		Total	
	No.	Difference	No.	Difference	No.	Difference	No.	Difference
Arts and Humanities								
Non-college Disciplines								
1981	4	($ 5,655)[1]	19	($ 2,932)	21	$ 6,580	44	($ 2,007)
1982	4	(6,239)	19	(10,822)	21	3,611	44	(13,450)
Change 1981-1982		(584)		(7,890)		(2,969)		(11,443)
Human & Community Resources								
College of Physical Educ., Recreation & Health								
1981	1	($ 177)	4	$ 3,460	7	$ 3,935	12	$ 7,218
1982	1	(692)	4	3,958	7	4,616	12	7,882
Change 1981-1982		(515)		498		681		664
College of Human Ecology & College of Education								
1981	10	$ 3,566	14	$14,635	26	$12,073	50	$30,274
1982	10	3,188	14	7,851	26	9,235	50	20,274
Change 1981-1982		(378)		(6,784)		(2,838)		(10,000)
School of Architecture, College of Journalism & College of Library & Information Services								
1981	1	$ 7,155	1	($ 141)	3	$12,091	5	$19,105
1982	1	8,367	1	239	3	14,953	5	23,559
Change 1981-1982		1,212		380		2,862		4,454
Total								
1981	29	26,689	54	$18,066	86	$48,603	169	$93,358
1982	29	20,708	54	(8,423)	86	57,286	169	69,571
Change 1981-1982		(5,981)		(26,489)		8,683		(23,787)

[1]Parentheses indicate that the total actual salaries for women were larger than the salaries predicted from the men's regression equations.

The increase in the salary difference for women assistant professors in the constant group arises from increases in this difference in Agricultural and Life Sciences, Non-college Disciplines; MPSE, both the College of Engineering and Non-college Disciplines; in BSOS, both College and Non-college Disciplines; in the College of Physical Education, Recreation and Health; and in the unit comprising Architecture, Journalism, and Library and Information Services. The units showing a decrease in the salary difference for women assistant professors were the College of Human Ecology and College of Education, and Arts and Humanities Non-college Disciplines. In the College of Agriculture, in 1981, women's predicted salaries exceeded their actual salaries. In 1982 their actual salaries exceeded their predicted salaries. This was the only unit in the constant group analysis in which women assistant professors' actual salaries exceeded their predicted salaries. Among associate professors there were a number of units in which the change in salary difference between 1981 and 1982 was larger than a thousand dollars. The College of Engineering was the only unit which experienced a substantial negative increase in the salary difference between men and women.

In regard to professors, only two units showed an increase in the salary difference. These were the non-college disciplines of MPSE and the unit comprising Architecture, Journalism, and Library and Information Services.

Effect of Supplemental Increases on Salaries of Women Faculty

Following the comparative studies of male and female salaries in 1979 and 1980, the campus designed a review process to examine comparability of individual female faculty members' salaries with those of similarly situated male faculty members.

The campus in 1982 again established divisional review committees to review and make recommendations to the provosts regarding the relationship between the salaries of comparably situated men and women faculty. A committee was created by each Provost and comprised seven senior faculty members. Five of these members participated in each divisional salary review. Of these five, at least two were women. As salaries of faculty from specific departments were reviewed, two senior faculty members from that department were added to each committee.

The purpose of this division-level committee review was to examine the salary of each female faculty member and to recommend to the Provost individual adjustments, if any were warranted, on the basis of judgments of the woman's merit in comparison to similarly situated men colleagues. For purposes of this review, similarly situated meant the same department, the same rank, and the same number of years-since-degree.

Once male faculty were selected for comparison to a given female faculty member, the committee made assessments of merit, taking into account all the factors which the department considered important and the relative weights attached by the department to research and scholarly productivity, teaching effectiveness, and public service. The committee considered any other relevant factors, such as the employment market conditions affecting a particular discipline.

Each divisional committee completed its work and provided its recommendations to the Provost for his review and inclusion, where warranted, in the division's FY 83 salary recommendations. This process resulted in decisions to increase the salaries of 73 women faculty members by a total of $57,832 for the fiscal year beginning July 1, 1982.

Of the 73 women whose salaries were adjusted, 58 were in the 1982 study population; three of these were promoted in 1982. The other 15 were non-doctoral degree holders, not in an academic department, on leave-without-pay in Fall 1982, or subsequently resigned. Table 8 shows the amount by which 1982 10-month salaries were adjusted as a result of the review, the 1982 salary increases awarded before the adjustment, and the total salary differences for these 58 women in Fall 1981 and Fall 1982. All salaries are 10-month salaries or converted to a 10-month basis. Total salary differences are the differences between these women's actual salaries and the salaries predicted by the men's regression equations for the total group of men. As indicated in Table 8, the 1982 salary adjustments are nearly equal to the reduction in salary differences for the women associate and assistant professors who received adjustments. The salary adjustment given to the nine professors was larger than the decrease in their salary differences, indicating that most of their salary adjustment served to keep their salary differences from increasing in 1982.

The amount of money available to departments for faculty salary increases in FY 1983 permitted average increases of 14.2 percent above FY 1982 salary levels, including a cost-of-living increase of nine percent. Note that across-the-board percentage increases exacerbate any existing salary differences. In order for salary differences to decrease, on average, women must receive larger percentage raises than men. In FY 1983, individual awards varied considerably. These salary increases were awarded prior to the review of men's and women's relative salary levels which was described previously. Table 9 shows the effect of the salary adjustments in terms of the salary increases awarded to all women who did not change their status between 1981 and 1982.

TABLE 8

ORIGINAL SALARY INCREASES, ADJUSTMENTS, AND SALARY DIFFERENCES

FOR 58 WOMEN RECEIVING ADJUSTMENTS[1]

Rank in 1982	Number	Original[2] Increase	1982[3] Adjustment	Salary Differences 1981	1982	Change in Salary Differences
Professor	9	$ 38,062	$ 8,630	$34,358	$32,299	($ 2,059)
Associate Professor						
Associate in 1981	26	90,564	20,563	17,983	(2,352)[4]	(19,353)
Assistant in 1981	3	12,271	2,300	(982)		
Assistant Professor	20	60,322	12,407	17,967	4,470	(13,497)
All Ranks	58	201,219	43,900	69,326	34,417	(34,909)

[1]All Salaries are 10-month salaries or converted to a 10-month basis.

[2]Original salary increase, excluding the special merit adjustment.

[3]Special merit adjustment.

[4]Parentheses indicate that the total actual salaries for women were larger than the salaries predicted from the men's regression equations.

Of the 169 women in the constant group, 55 received adjustments. This table allows one to see the overall effect of the adjustments on the percentage salary increases awarded to women, and to compare the initial and total percentage increases for these women to the average percentage increases for men in the constant group.

As indicated in Table 9, prior to the adjustments, doctoral women who did not change rank received slightly lower average raises than did similar men (14.31 percent vs. 14.51 percent). Percentage increases averaged slightly higher for women professors and associate professors than for men, but were lower for women assistant professors than for men (14.42 percent vs. 15.95 percent). Following the adjustment, women professors and women associate professors had higher average percentage increases than did men of equal rank, although women assistant professors' average increases were still less than men's (15.15 percent vs. 15.95 percent).

These results explain in large part why there were decreases in the salary differences for women assistant professors but an increase for women assistant professors. As stated earlier, in order for salary differences to decrease, on average women must receive larger percentage salary increases than men receive. If the original increases in salaries for women had not been supplemented by the 1982 adjustment, women's average percentage salary increases would not have exceeded men's and salary differences at all three ranks would have increased. However, the adjustments were large enough at the two higher ranks to lead to a reduction of the salary differences for women at these ranks. The adjustments at the assistant professor rank were not even large enough to bring these women's average increase to the same percentage as the men's, thus assuring an increase in the salary difference for women assistant professors.

TABLE 9

FY 1983 AVERAGE PERCENTAGE SALARY INCREASES

BY RANK (CONSTANT GROUP)

Rank	WOMEN			MEN	
	N	Average Percentage Salary Increase		N	Average Percentage Salary Increase
		Before Adjustment	After Adjustment		
Professor	29	14.08	15.02	377	14.06
Associate Professor	54	14.27	15.84	322	14.19
Assistant Professor	86	14.42	15.15	189	15.95
All Ranks	169	14.31	15.35	888	14.51

SUMMARY OF FINDINGS

Regression equations were calculated for 1981 and 1982 by academic unit for the salaries of male faculty who met defined selection criteria. Salary differences between women's actual salaries and the salaries predicted by the men's regression equations were computed by academic unit and rank, controlling for the number of years since award of the doctorate. For the total study population, women's total salary differences were $95,231 in Fall 1981 and $88,711 in Fall 1982.

With the exception of one female assistant professor's salary, initial salaries of assistant professors who were new in the summer of 1982 had little effect on the salary difference between men and women in Fall 1982. An analysis of salary predictions for women who did not change their status between Fall 1981 and Fall 1982 indicated that the total salary difference for this group of 169 women decreased from $93,358 in 1981 to $69,571 in 1982. Women in this group received larger average percentage salary increases than did men who did not change their status. This effect resulted from greater percentage increases for women professors and associate professors than for men at these ranks. Women assistant professors received lower average percentage salary increases than did men at that rank.

Salary adjustments were awarded to 73 women in FY 1983, including 58 women in the study population. These adjustments contributed to the reduction in the salary differences for women at the ranks of professor and associate professor, and kept the increase in salary differences at the assistant professor level from being larger than it was. Without the salary adjustments, the salary differences would have increased at all three ranks.

REVIEW AND ACTIONS

In 1983 the Chancellor established divisional review committees to make recommendations to the Provosts regarding female faculty salary comparability. A committee of seven senior faculty members was created by each Provost. Five of these members participated in each divisional review. Of these five, at least two were women. As salaries of faculty from specific departments were reviewed, two senior faculty members from that department were added to the committee.

These committees examined the salary of each female faculty member and recommended to the Provost individual adjustments, if they were warranted, on the basis of judgments of each woman's merit in comparison to similarly situated male colleagues. Similarly, if the committee, as a result of its review of faculty merit, determined a male faculty member's salary should be increased relative to that of similarly situated females, such an increase was recommended.

The committees' recommendations for changes in relative female, or male, faculty salary levels, if any, were reviewed by the Provosts as they were reviewing departmental merit salary recommendations. Adjustments to salaries were made within each department's total merit salary allocation. This process resulted in decisions to increase the salaries of 20 women by a total of $15,416 for the fiscal year beginning July 1, 1983. The review process reflected the progress made by previous annual reviews in assuring salary equity for females. The female faculty salary recommendations made by department chairpersons generally were confirmed as equitable by the Provosts' review committees. In addition to the adjustments made in the salaries of the 20 women, the salaries of three male faculty members were

adjusted by a total of $1,225. Although merit salary increases provided by the Legislature are not effective until January 1984, these equity adjustments were made effective at the beginning of the fiscal year.

A study comparing promotion and tenure rates for women and men faculty currently is under way in the Office of Institutional Studies. The results of this effort will contribute more information on salary comparability between men and women faculty. A study is also planned to investigate salary differences between men and women faculty holding non-doctoral degrees.